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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,157	11/17/2003	Hiroyasu Shirakawa	P69286US0	9453

136 7590 10/03/2005

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EXAMINER

LITHGOW, THOMAS M

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,157

Applicant(s)

SHIRAKAWA ET AL.

Examiner

Thomas M. Lithgow

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14 and 15 is/are rejected.
- 7) ☒ Claim(s) 10-13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-5, 7-8 and 14 are rejected under 35 U.S.C. 102(b) as being anticipate by either one of Hazel (US 3468421) or Huval (US 3471401) or Fett (US 4039441) or Gentry (US 3853766). Hazel '421 discloses a multiple chamber filter/coalescer for removing oil (dispersed) from water and includes domes 41-46 "tanks" (domes) for collecting heavier than water and/or lighter than water materials. Each of the domes defines an orifice at its entry. Huval '401 discloses a multiple chamber filter/coalescer with a feed inlet at 26 of emulsified oil in water, a solids trap 30, a primary filter/coalescer 28 with a trap 32 past the filter for accumulating floating oil. Fett '441 discloses a filter/coalescing unit which is vertically oriented and having an inlet , 18, a solids trap 10b with a removal pipe 20, an oil trap 10a with an oil outlet pipe 22, and a water outlet pipe

23. Gentry '766 discloses a separator for immiscible liquids including dispersed oil in water in which there is a feed inlet at 45, followed by a serially arranged out-in and in-out filter coalescer unit (41 for example) along with collector domes 51,52 for heavies [col. 3, lines 41+], and domes 53 and 54 and 12 for floats (oil).

3. Claims 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Cordier (US 4276181). Cordier '181 discloses a filter/coalescer unit having a feed inlet at 9 to the bottom portion of tank 1. The emulsified water flow goes through a filter/coalescer media 5 followed by an upper conical receiver 25 leading to an oil "tank" area above the cone. The purified water is discharged at 35.

4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by either one of Going (US 3414129) or Storm (US 1235395). Each separator includes a feed inlet below a filter with a conical heavies removal outlet below the filter.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Hazel (US 3468421) or Huval (US 3471401) or Fett (US 4039441) or Gentry (US 3853766) as applied to claims 1,4 and 7 respectively above, and further in view of Rymal (US 5368747). The use of conical shaped outlets in oil/water separators for the solids as well as the floats (oil) is well known and is shown together in a single unit by Rymal "747. Such a well-known addition to any of the above noted oil/water separators would have been obvious to one of ordinary skill in the art.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Hazel (US 3468421) or Huval (US 3471401) or Fett (US 4039441) or Gentry (US 3853766) as applied to claim 4 above, and further in view of Fink (US 5236585). Fink '585 teaches the use of an additional oil separator for the already coalesced oil. To provide such a tank on any of

the oil outlets (floats) in the above four separators would have been obvious to one of ordinary skill in the art.

Allowable Subject Matter

8. Claims 10-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas M. Lithgow whose telephone number is 571-272-1162. The examiner can normally be reached on Mon. -Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thomas M. Lithgow
Primary Examiner
Art Unit 1724

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